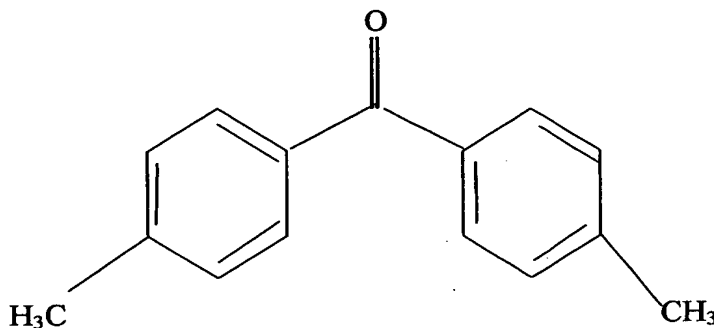


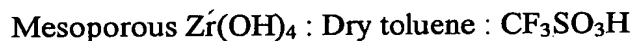
**We Claim:**

1. A process for preparing 4,4' – dimethylbenzophenone of formula 1

**Formula 1**

which comprises acylating toluene with an acylating agent in the presence of a solid acid triflic acid functionalized mesoporous zirconia catalyst, and separating the product obtained.

2. A process as claimed in claim 1 wherein the reaction is carried out for a time period in the range of 1 to 24 hours.
3. A process as claimed in claim 1 wherein the reaction is carried out at a temperature in the range of 100-150<sup>0</sup>C.
4. A process as claimed in claim 1 wherein the acylating agent is selected from halides of benzoic acids.
5. A process as claimed in claim 1 wherein the triflic acid functionalized mesoporous zirconia catalyst has the molar composition:



wherein  $\text{Zr}(\text{OC}_4\text{H}_9)_4$  is Zirconium tetra butoxide, BuOH is 1-butanol, CTMABr is Cetyltrimethylammonium bromide, TMAOH is Tetramethylammonium hydroxide,  $\text{Zr}(\text{OH})_4$  is Zirconium tetra hydroxide, and  $\text{CF}_3\text{SO}_3\text{H}$  is triflic acid, having  $\text{Zr}(\text{OH})_4$  /  $\text{CF}_3\text{SO}_3\text{H}$  molar ratio of from 5-30 and a pore size of 0.45 – 0.33 Å, and surface of 371-284 m<sup>2</sup>/g.

6. A process as claimed in claim 1 wherein the molar ratio of toluene to the acylating agent is in the range of 1:1 to 10:1.
7. A process as claimed in claim 4 wherein the acylating agent comprises para-toluoyl chloride.